In the Claims:

1-10. (Cancelled)

11. (New) A method of gene therapy in a non-hepatic tissue of a patient, comprising delivering to a patient an AAV vector or an AAV particle having a capsid encoded by the AAV vector, wherein the AAV vector carries at least one mutation in a heparin-binding motif of a capsid protein and causes a reduced or eliminated heparin binding function, wherein said mutation is an amino acid substitution at amino acid position arginine 484 and/or arginine 585.

12. (New) The method of claim 11, wherein said amino acid mutation is a non-conservative amino acid substitution.

13. (New) The method of claim 12, wherein the capsid protein being characterized by at least one of the following amino acid substitutions:

(a) R484A or R484E, and/or

(b) R 585E.

14. (New) The method of claim 13 with the capsid protein being characterized by the amino acid substitutions R 484E and/or 585E.

15. (New) The method of claim 11, wherein the AAV vector is an AAV-2 vector.

16. (New) The method of claim 11, wherein the capsid protein is VP1, VP2, or VP3.

17. (New) The method of Claim 16, wherein the capsid protein is VP1.

18. (New) The method of Claim 11, wherein the amino acid position is numbered according to the numbering based on VP1 protein.

19. (New) The method of claim 11, wherein said non-hepatic tissue is a heart muscle tissue.

20. (New) The method of claim 11, wherein said delivering is systemic delivering.